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Indian Standard
**SPECIFICATION FOR
TROLLEYS, PATIENT**

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BUREAU OF INDIAN STANDARDS
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Indian Standard

SPECIFICATION FOR TROLLEYS, PATIENT

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Indian Standard

SPECIFICATION FOR TROLLEYS, PATIENT

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 7 August 1967, after the draft finalized by the Hospital Equipment Sectional Committee had been approved by the Consumer Products Division Council.

0.2 The formulation of Indian Standards on hospital equipment has been taken up on the recommendations of the Advisory Committee for the Development of the Surgical Instruments, Equipment and Appliances, Government of India.

0.3 This standard is one of a series of Indian Standards on hospital furniture. Other Standards published so far are:

IS : 4035-1967 Specification for trolleys, stretcher

IS : 4037-1967 Specification for stretchers and stretcher carriers

0.4 In order to minimize the risk arising from static electricity, only anti-static castors have been specified and the top of the trolley is required to be free from any insulating coating or finish. Other accessories are to be fitted to the trolley in such a manner as to maintain electrical continuity between metal to metal.

0.5 In preparing this standard, considerable assistance has been derived from the following standards:

IND/GS/MED/504(c) Trolleys, patients, complete. Chief Inspectorate of General Stores, Ministry of Defence, Government of India.

B.S. 1962 : 1953 Patients' trolleys (fixed top). British Standards Institution.

0.6 In some of the clauses of the standard, reference has been made to IS : 4033* and IS : 4034† which are under preparation. Until these standards are published, the requirements in such clauses shall be subject to agreement between the concerned parties.

0.7 This standard contains a clause which calls for agreement between the purchaser and the supplier. The relevant clause is 5.2.

*General requirements for hospital furniture (under preparation).

†Specification for castors for hospital equipment (under preparation).

0.8 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS:2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the requirements for fixed-top patients' trolleys used in hospitals and at other similar institutions.

2. MATERIALS

2.1 Frame Work — shall be according to 2.1 of IS : 4033†.

2.2 Top — The top shall be of rust-resisting or rust-proof metal. It shall also conform to 2.2 of IS : 4033†.

2.3 Castors — shall be according to IS : 4034‡.

3. DIMENSIONS

3.1 The main dimensions of trolleys shall be as given in Fig. 1.

3.2 The thickness of tubes used and their corresponding outside diameters for different parts shall be as given below:

Part	Thickness of Tube	Outside Diameter of Tube
	mm	mm
Vertical members	1.02	31.75
Horizontal members	1.02	25.40

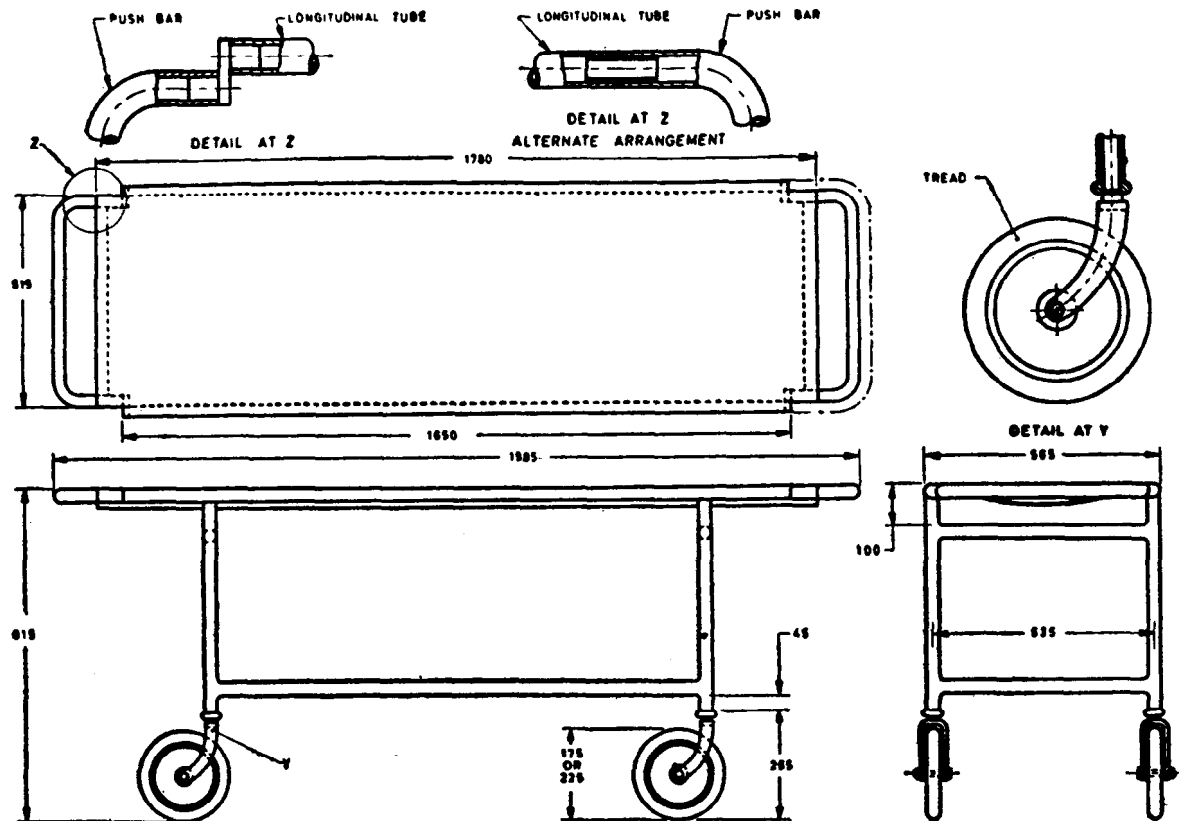
3.3 The minimum thickness of various metal sheets used for top shall be as given below:

Material	Thickness
	mm
Mild steel and galvanized iron	1.00
Aluminium	1.25
Stainless steel	0.80

*Rules for rounding off numerical values (revised).

†General requirements for hospital furniture (under preparation).

‡Specification for castors for hospital equipment (under preparation).



Tolerance on all dimensions: ± 5 mm
All dimensions in millimetres.

FIG. 1 PATIENT'S TROLLEY, FIXED TOP

4. MANUFACTURE

4.1 Trolley shall have a frame work of single continuous length mild steel tubes as shown in Fig. 1. The four upright members shall be connected together by two pairs of longitudinal tie bars and two pairs of transverse tie bars. The upper pair of longitudinal tie bars covering the ends of the upright members shall provide a support for the sheet metal top. The end tubes bent to form push bars shall be securely welded to the upper pair of longitudinal tie bars to provide a strong and rigid joint. The sheet metal top shall be dished to a depth of not less than 37 and not more than 50 mm. It shall be attached to a longitudinal tie bars and to the transverse tie bars at each end by rolling over and soldering or shall be otherwise securely fastened to the frame work. The rest of the details shall be according to 4.1 of IS : 4033*.

4.2 Castors — Each trolley shall be provided with four castors having anti-static rubber tread. For rest of the details 4.2 of IS : 4033* shall apply.

5. FINISH

5.1 The finish shall be in accordance with 5 of IS : 4033*.

5.2 The sheet metal top shall be finished with a polish or matt surface as required by the purchaser.

NOTE — In order to maintain electrical continuity, it is important that the top should not be finished with a coating of any material of an insulating nature.

5.3 The push bars shall be chromium plated over nickel and the plating shall conform to Grade B of IS : 1068-1958†.

6. TESTS

6.1 The test shall be as specified in 6 of IS : 4033*. But when testing the performance under load, a total load of 135 kg shall be distributed over the full width of the trolley.

7. MARKING

7.1 The marking shall be as specified in 7 of IS : 4033*.

8. PACKING

8.1 The packing shall be as specified in 8 of IS : 4033*.

*General requirements for hospital furniture (under preparation).

†Specification for copper, nickel and chromium electroplated coatings.

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AMENDMENT NO. 1 MAY 1993
TO
IS 4036 : 1967 SPECIFICATION FOR TROLLEYS,
PATIENT

(*Page 5, Fig. 1*) — Substitute dia of the castor wheel '*Min 150*' for '*175 or 225*'.

(*Page 6, clause 4.2*) — Insert the following clauses after this clause:

'4.2.1 The minimum thickness of castors shall be 40 mm.

4.2.2 Braking arrangements for castors may be provided as agreed to between the manufacturer and the supplier.'

(MHD 14)

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